IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF PENNSYLVANIA

TULLIO L. DELIBERALI,

Plaintiff,

CIVIL ACTION NO. 2:18-cv-02682-ER

v.

A.W. CHESTERTON, INC., et al.

Defendants.

DECLARATION OF PETER NEUSHUL, PH.D.

Owens-Illinois, Inc. ("Owens-Illinois") submits the Declaration of Peter Neushul, Ph.D. in support of its Notice of Removal.

Respectfully submitted,

MARON MARVEL BRADLEY ANDERSON & TARDY, LLC

By: /s/ Chad D. Mountain

Chad D. Mountain, Esquire

Date: June 28, 2018 Attorney I.D. No. 86908

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Counsel for Defendant Owens-Illinois, Inc.

DECLARATION OF PETER NEUSHUL, PH.D.

Peter Neushul, Ph.D. declares as follows:

- 1. Attached is my curriculum vitae. I am a historian of science, technology, and medicine with an emphasis on 20th Century U.S. History and Environmental History. I received a doctorate in 1992 from U.C. Santa Barbara. At present I am a Visiting Researcher in the Department of History at U.C. Santa Barbara and a partner at Graves & Neushul Historical Consultants. My research and writing are rooted in 20th century science and technology with a focus on World War II War Production. The attached curriculum vita includes a complete list of my publications over the past ten years.
- 2. I have reviewed and analyzed numerous documents regarding the development of Kaylo, the asbestos-containing insulation product manufactured by Owens-Illinois, Inc. ("O-I"), and the historical knowledge of O-I regarding the potential health hazards of asbestos. These have included technical reports, deposition transcripts, and other O-I corporate records.
- 3. I have also conducted historical research on the history of asbestos use by the United States Navy, the knowledge possessed by the United States Navy and the U.S. Maritime Commission regarding the potential hazards associated with exposures to asbestos dust, and am familiar with the United States Navy's specifications for

thermal insulation products and the procedures by which such products are approved for use by the United States Navy.

- 4. To place O-I's knowledge of the potential hazards of exposure to asbestos dust within the proper historical context, one must understand the history of industrial science, industrial medicine, and industrial hygiene during the 1940s and 1950s.

 Asbestos related disease was not a major health concern during the early part of the century. Indeed, Alice Hamilton's Industrial Toxicology (1929), the definitive text of that era, does not include the term in its index. Over the next thirty years, the fields of industrial science, medicine, and hygiene developed into distinct disciplines that produced experts whose skills were used by both government and industry.
- 5. O-I is, and always has been, primarily a glass bottle manufacturing company. During the 1940s and 1950s, O-I and other corporations addressed the issue of industrial hygiene. O-I's particular concern for safety is understandable considering the silicosis crisis of the 1930s. Historians describe silicosis as "the industrial disease" of that era. Silicosis was often accompanied by tuberculosis, a lung disease that killed over 63,000 Americans every year. As a major producer of glass, silicosis was the primary incentive for O-I's attention to dust safety measures during the 1940s.
- 6. During World War II, the United States Navy and United States Maritime
 Commission oversaw the largest shipbuilding enterprise in world history. The Navy
 and Maritime Commission required that both military and civilian vessels (liberty

ships) use fireproof insulation. O-I was among those that developed a high temperature pipe and block insulation for use aboard such vessels. Its product, a calcium silicate with the brand name "Kaylo," was subsequently approved for use by the Navy and, in 1948, Kaylo went into commercial production.

7. The United States Navy's approval of Kaylo for use aboard Navy ships is evidenced by Kaylo's appearance on the Navy's Qualified Products Lists (QPLs). See Qualified Products List of Products Qualified Under Military Specification Mil-I-2819 (formerly Specification 32-I-3) (listing O-I Kaylo thermal block insulation as having "qualified under the requirements for the product as specified in the latest issue of the applicable specification."); Qualified Products List of Products Qualified Under Military Specification Mil-I-2781 (formerly Specification 32-P-8) (listing O-I Kaylo thermal pipe insulation as having met the same standard under the specifications applicable to that product). Kaylo could not appear on the Navy's QPL or installed aboard United States Navy vessels unless it complied with all applicable Navy specifications. By the terms of the QPLs, only those products that have "qualified under the requirements for the product as specified in the latest issue of the applicable specifications" are included on the approved products list. Moreover, the United States Navy Bureau of Ships publication on thermal insulation materials lists as "available" only those insulating materials that comply with the applicable government specifications. See Bureau of Ships Manual, Chapter 39, Thermal Insulation (1947). I am familiar with the other hightemperature thermal insulation products approved for use by the United States Navy during the 1940s and 1950s and all products approved by the United States Navy for the same temperature ranges as Kaylo contained asbestos.

Prior to O-I's development of Kaylo, the United States Government had 8. become aware that asbestos could cause disease under heavy exposure conditions. In 1938, the U.S. Public Health Service conducted a study to determine "what concentrations of asbestos dust can be tolerated without injury to health." Its study concluded that asbestos-related disease would not occur if asbestos dust concentrations were kept below 5 million particles per cubic foot (mppcf). See Dreessen, et al., A Study of Asbestosis in the Asbestos Textile Industry (1938). Dr. Dreessen recommended 5 mppcf as a tentative threshold value for asbestos dust, meaning the exposure level below which asbestos disease would not be expected to appear. In 1946, the American Conference of Governmental Industrial Hygienists adopted 5 mppcf as the official Maximum Allowable Concentration (MAC) for asbestos dust. See Proceedings of the Eighth Annual Meeting of the American Conference of Governmental Industrial Hygienists (ACGIH). In the early-1950s, the Walsh-Healey Public Contracts Act adopted the ACGIH standard and mandated that all entities contracting with the federal government – including Navy contract shipyards – ensure that their employees were not being exposed above this guideline while working on federal contracts. See Safety and Health Standards for Contractors performing Federal Supply Contracts

under the Walsh-Healey Public Contracts Act (1951). The United States Navy thereafter formally adopted the 5 mppcf asbestos standard promulgated by the ACGIH. *See* BUMED Instruction 6270.3 (Nov. 7, 1955).

- 9. Before scaling up for commercial production of Kaylo, O-I employed the Saranac Laboratory at Saranac Lake, New York to conduct a series of animal tests on Kaylo that were designed to determine whether the asbestos and silica in Kaylo were altered by the manufacturing process. The final results of the testing performed by the Saranac Laboratory were that the manufacturing process had rendered the silica inert, but that the asbestos retained its ability to cause fibrosis in laboratory animals under excessive exposure conditions. *See* Schepers, Effect of Inhaled Commercial Hydrous Calcium Silicate Dust on Animal Tissues, A.M.A. Archives of Industrial Health, Vol. 12, No. 3 (Sept. 1955). The study was not designed to address the question of what levels of exposure to Kaylo were considered safe.
- 10. Historically, the United States Navy was a leader in the development and implementation of asbestos safety measures. Since at least 1922, before O-I ever began production or development of its Kaylo product, the United States Navy was well aware of the potential for asbestos related disease and included methods for preventing dust inhalation in medical bulletins. Those methods included the use of water to dampen dust, the use of exhaust systems, the use of ventilated chambers for dust-producing processes, and the use of personal protective equipment including

respirators. *See* Occupation Hazards and Diagnostic Signs: A Guide to Impairments to be Looked for in Hazardous Occupations, United States Naval Medical Bulletin (Nov. 1922).

- 11. In 1941, the Navy Department's Bureau of Medicine and Surgery published its Annual Report that explicitly recognized asbestosis as "an industrial disease of the lungs incident to the inhalation of asbestos dust for prolonged periods." See Annual Report of the Surgeon General, United States Navy to the Secretary of the Navy Concerning Statistics of Diseases and Injuries in the United States Navy for the Calendar Year 1939.
- 12. Also in 1941, Captain Ernest W. Brown published an article entitled Industrial Hygiene and the Navy in National Defense in which he characterized asbestosis as a "potential occupational disease hazard due to inhalation of asbestos dust." See E. Brown, Industrial Hygiene and the Navy in National Defense, War Medicine, Vol. 1 (1941).
- 13. In the early 1940s, Professor Philip Drinker of Harvard University, a leading U.S. authority on dust and industrial disease, join naval officers in visiting a number of Navy shipyards to observe and report upon various occupational health risks. On September 22, 1942, a report from a survey of Bath Iron Works reported a "very real asbestosis hazard and recommended various industrial hygiene practices to

limit workers' exposure to dusts. *See* Industrial Health Survey of the Bath Iron Works Corporation, Bath, Maine (Sept. 22, 1942).

- 14. In 1943, the United States Navy and the U.S. Maritime Commission published Minimum Requirements for Safety and Industrial Health at Contract Shipyards that recommended various industrial hygiene controls for the prevention of asbestos-related disease, including the segregation of dusty work, the use of special ventilation, and, where necessary, the wearing of respiratory protection by those working with asbestos-containing materials.
- 15. In January 1944, Professor Drinker sent a memorandum to the United States Navy Bureau of Ships in which he recommended an increased use of industrial hygiene controls, including wet methods, ventilation and the wearing of respirators. *See* Jan. 8, 1944 Letter from Drinker to Cpt. Ingram, Bureau of Ships.
- 16. In December 1944, the U.S. Maritime Commission re-surveyed the pipe covering shop at Bath Iron Works to determine the incidence of asbestosis and issued a report that contained numerous recommendations to limit exposures to asbestos dust, including the use of ventilation where insulation was cut and the isolation of cutting and mixing operations from uninvolved personnel. *See* Report on Investigation of Asbestosis from Amosite Pipe Covering at Bath Iron Works (Dec. 19, 1944).
- 17. The results of Drinker's large-scale epidemiological study of several Navy shipyards were published in 1946. *See* Fleischer, et al., A Health Survey of Pipe

Covering Operations in Constructing Naval Vessels, 28 Journal of Industrial Hygiene and Toxicology 9-19, (Vol. 28, No. 1, Jan. 1946). Professor Drinker and his team had conducted his studies of these shipyards at the request of the United States Navy due to reports that some shipyard workers were suspected of having contracted asbestosis—a disease Drinker's report characterized as "a well-known industrial disease caused by . . . prolonged breathing of asbestos dust." *Id.* at 9. Although Drinker's study reported the presence of asbestosis in some shipyard workers, it confirmed that asbestos dust levels at these Navy shipyards generally did not exceed the recognized safe level of exposure. Drinker's report confirms that various industrial hygiene methods intended to avoid excessive exposure (e.g. ventilation equipment and respirators) were well known to the Navy and used in Navy shipyards. The United States Navy was therefore fully aware in the 1940s and 1950s of the need to use standard industrial hygiene techniques to control asbestos exposures.

18. Willis G. Hazard was O-I's industrial hygienist during the period of time that O-I manufactured its Kaylo product. Mr. Hazard was a Harvard educated industrial hygienist who studied with Professor Drinker. Mr. Hazard's testimony indicates that he read and relied upon Drinker's wartime study of United States Navy shipyards in forming his opinions regarding the safety of O-I's Kaylo product. *See* Willis Hazard Dep., Feb. 11, 1981, at 102:13-23.

19. The United States Navy and the U.S. Maritime Commission were leaders in the development of knowledge related to the potential health hazards associated with exposures to asbestos dust and the industrial hygiene controls necessary to control those exposures. The use of asbestos by the United States Navy dates to the early 20th century, decades before O-I ever began production of its Kaylo product. From the 1920s onward, O-I had no information about the potential health hazards associated with exposures to asbestos dust that the United States Navy and the U.S. Maritime

Commission did not already have. In fact, O-I relied on a study commissioned by the United States Navy in evaluating the safety of Kaylo. There is nothing that O-I could have warned the United States Navy about regarding the potential hazards of exposure to asbestos dust in the 1940s or 1950s that the United States Navy did not already know.

I declare under penalty of law that the foregoing is true and correct. Executed on 27 February 2018.

By:

Peter Neushul, Ph.D.

PETER NEUSHUL

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Personal Details:

Born 28 October 1961, in Seattle, Washington

Teaching Fields:

History of Technology, History of Science, Environmental History

Education:

B.A. in History, University of California at Santa Barbara, 1983

M.A. in History, University of California at Santa Barbara, 1986

Ph.D. in History, University of California at Santa Barbara, 1993

Examinations in US History/Environment, History of American Technology, History of Science, and Marine Biology

Dissertation: Science, Technology, and the Arsenal of Democracy: Production Research and Development during WW II

Teaching Experience:

Teaching Assistant, Department of History, UCSB

History 17A,17B,17C "American Survey Course", 1986-1987

History17A and History173S "U.S. Popular Cult. Hist.", 1987-1988

History 78 and History 178 "American Urban History", 1989

History 4C "Western Civilization", 1989, 1991, 1992

History 178M "American Urban Crime", 1992

Teaching Assistant, Department of Environmental Studies, UCSB

Social Environment, 1992

Visiting Professor, Department of History, UCSB

History of US Science and Technology Policy, 1993

Visiting Professor, Environmental Studies Program, UCSB

US Environmental History, 1993

Visiting Professor, Department of History, UCSB

History of US Science and Technology Policy, 1995

Visiting Professor, Humanities and Social Sciences, California Institute of Technology

History of Environmentalism, 1997

Visiting Professor, Department of History, UCSB

History of US Science and Technology Policy, 2000

Adjunct Professor, Department of History, Santa Barbara City College

United States History, 2002-2003

Visiting Professor, Department of History, UCSB

History of US Science and Technology Policy, 2003-2008

Visiting Professor, Department of History, UCSB

History of Surfing, 2008-

Articles Published:

- "Love Canal Revisited, Discovery: UCSB Journal of Undergraduate Research, 6 (1983), 119-134.
- "Love Canal: A Historical Review," Mid-America: An Historical Review, 69 (1987), 125-138.
- "Energy from Marine Biomass: The Historical Record," in K. T. Bird and P. H. Benson (eds.), *Seaweed Cultivation for Renewable Resources* (Amsterdam: Elsevier, 1987), pp. 1-37.
- "Seaweed for War: California's World War I Kelp Industry," Technology and Culture, 30 (1989), 561-83.
- "Explorers 7, 11, 23, 37, 38, 42, 44, 48, 49, 53: Astronomy Explorers, in F. N. Magill (ed.), *Magill's Survey of Science: Space Exploration Series* (Pasadena: Salem Press, 1989), pp. 407-12.
- "Howard Florey and Ernst Chain Develop Penicillin as an Antibiotic in England," in F. N. Magill (ed.), *Great Events from History: Science and Technology Series* (Pasadena: Salem Press, 1991), pp. 1171-75.
- "Alexander Fleming Discovers Penicillin in Molds," in F. N. Magill (ed.), *Great Events from History: Science and Technology Series* (Pasadena: Salem Press, 1991), pp. 873-77.
- "Synthetic Rubber," in S. Woodyard (ed.), *Magill's Survey of Science: Applied Science* (Pasadena: Salem Press, 1992), pp. 2601-08.
- "The Present and Future Uses of California's Marine Plant Resources," in W. S. Leet, C. M. Dewees, and C. W. Haugen (eds.), *California's Living Marine Resources* (Davis, CA: California Sea Grant, 1992), p. 6.
- "Science, Government, and the Mass Production of Penicillin," *Journal of the History of Medicine and Allied Sciences*, 48 (1993), 371-95.
- "Marie C. Stopes and the Popularization of Birth Control Technology," Technology and Culture, 32 (1998), 245-72.
- "Sir Alexander Fleming," in Richard Olson, (ed.), *The Biographical Encyclopedia of Scientists* (New York: Marshall Cavendish Corp., 1998), pp. 1317-19.
- "Selman Abraham Waksman," in Richard Olson, (ed.), *The Biographical Encyclopedia of Scientists* (New York: Marshall Cavendish Corp., 1998), pp. 1317-19.
- "Andrew Jackson Higgins and the Mass Production of World War II Landing Craft," in *Louisiana History* 39 (1998), 133-66.
- "Ocean Food and Energy from California Mariculture: An Evaluation of the US Marine Biomass Project from 1972 to 1986," in K. Benson and F. Rehbock (eds.), *Oceanographic History: The Pacific and Beyond* (Washington University Press, 2002), pp. 433-444.
- "Alexander Fleming," in Arne Hessenbruch (ed.), *Reader's Guide to the History of Science* (Fitzroy Dearborne Publishers, 2000).

Articles: (cont.)

- "Howard Walter Florey," in Arne Hessenbruch (ed.), *Reader's Guide to the History of Science* (Fitzroy Dearborne Publishers, 2000).
- "Fighting Research: Army Participation in the Clinical Testing and Mass Production of Penicillin During World War II," in Roger Cooter, Mark Harrison, and Steve Sturdy (eds.), *War Medicine, and Modernity*, 1860-1 \$\infty\$ 5 (Sutton, 1998), pp. 203-24.
- "Harvesting the Pacific: The Blue Revolution in China and the Philippines," Osiris 13 (1998), 186-213.
- "With the Marines at Tarawa," U.S. Naval Institute Proceedings 125 (April 1999), 74-79.
- "Love Canal," in Craig. W. Allin (ed.), Encyclopedia of Environmental Issues (Salem Press, 2000).
- "Gibb, Lois," in Craig W. Allin (ed.), Encyclopedia of Environmental Issues (Salem Press, 2000).
- "Italian dioxin release (1976)," in Craig W. Allin (ed.), Encyclopedia of Environmental Issues (Salem Press, 2000).
- "Passenger Pigeon," in Craig W. Allin (ed.), Encyclopedia of Environmental Issues (Salem Press, 2000).
- "The Cloning of Man? An Opportunity Missed?," Bioscience (submitted, under revision).
- "Between the Devil and the Deep Sea: C. K. Tseng and the Development of Marine Science and Technology in Modern China," *Isis* 91 (2000), 59-89.
- "Marine Biomass Energy," in John Everett and Mark Chandler, (eds.), *United Nations Atlas of the Oceans* (United Nations, 2002), http://www.oceansatlas.org/index.jsp
- "Antarctica Beneath the Ice: Marine Botany in the Polar Region," in Keith R. Benson and Helen M. Rozwadowski, (eds.), *Extremes: Oceanography's Adventures at the Poles* (Science History Publications, 2007), pp. 227-46.
- "Aerospace and Surfing: Connecting to California Keynotes," in Jannson Volker, ed., *Minds and Matters: Technology in California and the West*, (University of California Press, 2012).
- "1987-2015 Surfing Takes Off: The Boys (And Girls) of Summer," in Jim Heiman, ed., *Surfing* 1778-2015, (Tashen, 2016). pp. 488-582.
- "Blowing Foam and Blowing Minds: Better Surfing through Chemistry," in David Kaiser and Patrick McCray, eds., *Groovy Science* (University of Chicago Press, 2016).
- "Is there Surf? Wave Forecasting and Wave Riding," in Anita Guerrini and Helen Rozwadowski, eds., *American Oceanography at Mid-Century* (Oregon State University Press) forthcoming.

Book Reviews Published:

- A. Constandina Titus, *Bombs in the Backyard: Atomic Testing and American Politics*, in *Journal of the Southwest*, 33 (1991), 253-55.
- Lillian Hoddeson, Paul W. Henriksen, Roger A. Meade, and Catherine Westfall, *Critical Assembly: A Technical History of Los Alamos During the Oppenheimer Years*, 19, 34, 5, in *Physics Today*, 47 (1994), 92-93
- James R. Hansen, Spaceflight Revolution: NASA Langley Research Center From Sputnik to Apollo, in The Public Historian, 18 (1996), 70-72.
- Margaret W. Rossiter and Clark A. Elliot (eds.), *Science at Harvard University*, in *Archives internationals d'histoire Des Sciences* 46 (1996), 194-95.
- Andrew Russel, Elisa J. Sobo, and Mary S. Thompson (eds.), *Contraception Across Cultures: Technologies, Choices, Constraints*, in *Technology and Culture*, 42 (2001), 575-76.
- Daniel Greenberg, Science, Money, and Politics: Political Triumph and Ethical Erosion, in American Scientist, 90 (2002), 87-88.
- David M. Hart, Forged Consensus: Science, Technology, and Economic Policy in the United States, 1921-1953, in Isis, 91 (2000), 207-08.
- Nelly Oudshoorn, The Male Pill: A Biography of a Technology in the Making, in Technology and Culture, 47 (2006), 688-90.
- Mark D. Bowles, Science in F ux: N SA's Nuclear Program at Plum Brook Station 9 -8

 Isis 99 (2008), 866-867.

Books:

Arsenal of Democracy: Science and Technology on the Home Front (in progress).

A History of the Southwestern Division of the US Army Corps of Engineers 1986-199. (US Army Corps of Engineers, 1998).

An Era of Change: The Tulsa District of the U.S. Army Corps of Engineers 1971-1996 (US Army Corps of Engineers, 2009).

A History of the Los Angeles District of the U.S. Army Corps of Engineers 1965-1994 (forthcoming).

A History of the Galveston District of the U.S. Army Corps of Engineers 1986-1996 (forthcoming).

The World in the Curl: An Unconventional History of Surfing (Random House, 2013)

A History of the Institute for Water Resources, U.S. Army Corps of Engineers (forthcoming).

Papers Presented:

American Society for Ethnohistory Conference, Berkeley: 1988

"Use of Marine Plants by Native Americans along the Pacific Coast."

West Coast History of Science Society, Monterey: 1988

"Seaweed for War: California's World War I Kelp Industry."

Social Process Research Institute's Gender Research Group, UCSB: 1989

"Marie C. Stopes and the Technology of Birth Control."

Second International Congress on the History of Oceanography, Hamburg and Munich: 1989

"Harvesting the Sea: California's Alginates Industry."

UCSB History of Science Colloquium: 1989

"The WW II Office of Production Research and Development."

Society for the History of Technology, Sacramento: 1989

"Marie C. Stopes and the Development of Birth Control Technology."

National Research Council (National Academy of Sciences), Washington, D.C.: 1989

"Workshop on Ocean Farming/Global Change Issues: "The History of Ocean Farming."

West Coast History of Science Society, Morro Bay: 1990

"Harvesting the Sea: California's Alginates Industry."

Beckman Center for the History of Chemistry, Philadelphia: 1991

"Government, Science, and the Mass Production of Penicillin."

West Coast History of Science Society: 1992

"Government, Science, and the Mass Production of Penicillin."

Fifth International Congress on the History of Oceanography: 1993

"Ocean Food and Energy from California Mariculture: An Evaluation of the US Marine Biomass Project from 1972 to 1986."

UCSB History of Science Colloquium: 1994

"The Landing Craft Case: The Truman Committee and World War II Technology Policy."

Society for the Social History of Medicine Silver Jubilee Conference, Wellcome Institute for the History of Medicine: 1995

"Medicine and the Military: The Penicillin Story."

Western Society of Naturalists, 76th Annual Meeting, Port Townsend, Washington: 1996

"An Historical Perspective on the California Kelp Industry and Kelp Ecology."

American Society for Environmental History, Biennial Meeting, Baltimore, Maryland: 1997

"Getting the Lead Out: Clair C. Patterson and the Fight to Remove Tetraethyl Lead from Gasoline."

History of Science Society, San Diego: 1997

"Between the Devil and the Deep Sea: C. K. Tseng and the Development of Marine Science and Technology in Modern China."

XVIth International Seaweed Symposium, Cebu City, Philippines: 1998

"C.K. Tseng and the Maricultural Revolution in China."

UCSB History of Science Colloquium: 2000

"Claire C. Patterson and the Removal of Tetraethyl Lead from Gasoline."

Dibner Center, Massachusetts Institute of Technology: 2004

"Marine Biology, Mariculture, and the Blue Revolution."

Maury IV Workshop: History of Polar Oceanography, Barrow, Alaska: 2004

"Diving Antarctica: Marine Botany in the Polar Region."

History of Science Society, Austin: 2004

"World War II War Production at Caltech: The Rocket Program."

Papers Presented: (cont.)

Huntington Library, Pasadena: 2009

"Aerospace and Surfing: Connecting two California Keynotes."

Princeton University: 2011 Groovy Science: The Counter-Cultures of Scientific Life, 1955-1975

"Blowing Foam and Blowing Minds: Better Surfing through Chemistry."

History of Science Society, Boston: 2013 "Surf's up . . . forever! In Wave Pools."

Research Experience:

Research Assistant to Dr. Lawrence Badash, Professor of History of Science, UCSB: 1985-1988

Research Assistant to Dr. Lawrence Badash and Dr. Walter Kohn (Nobel Laureate),

Professor of Physics, UCSB: 1986-1988

Archivist employed by the Smithsonian Institution's National Air and Space Museum to

Build a computer database cataloging papers of Dr. George E. Mueller, Director of NASA's

Office of Manned Space Flight: 1987

Reader, Huntington Library in San Marino, CA: 1988-

Postdoctoral Researcher employed by the California Coastal Commission to build a computer

database on wetlands in the Southern California Bight: 1994-1995

Partner, Graves and Neushul Historical Consultants, 1994-

Visiting Researcher, University of California at Santa Barbara, 1994-

Visiting Researcher, California Institute of Technology, Assistant to Dr. Daniel J. Kevles, 1995-1999

Visiting Researcher, California Institute of Technology Archives, 1999-2001

Consulting Experience:

Graves and Neushul Historical Consultants, 1994-

Consultant to PHR Environmental Consultants, Inc., 1997-2000

Consultant and expert witness on asbestos related industrial and medical history, 2001-

Awards (received while at):

University of California at Santa Barbara

UCSB Athletic Scholarship, 1979-1983

Offerman Scholarship, 1983

Grant from the University of California's University-wide Energy Research Group, 1984-1985

UCSB Graduate Division Humanities Research Grant, 1987-1988

Huntington Library Fletcher Jones Fellow, 1989-1990

UCSB Graduate Division Humanities Research Grant (declined), 1989-1990

University of California's Institute on Global Conflict and Cooperation (IGCC) Dissertation

Fellowship, 1989-1991

Harry S. Truman Library Institute Grant, 1990-1991

Franklin and Eleanor Roosevelt Institute Grant, 1990-1991

Beckman Center for the History of Chemistry Travel Grant, 1991

Postdoctoral Grant from the University of California's University-wide Energy Research Group, 1992-1993

Postdoctoral Grant from the University of California's Pacific Rim Research Program, 1993-1995

Postdoctoral Grant from the California Coastal Commission, 1994-1995

UCSB Honors Teaching Grant, 1993

Book Contract, U.S. Army Corps of Engineers, Southwestern Division, 1994-1997

Research Grant, Wellcome Institute for the History of Medicine, 1995

Awards, cont.

Book Contract, U.S. Army Corps of Engineers, Los Angeles District, 1997-2000

Book Contract, U.S. Army Corps of Engineers, Tulsa District, 1997-

Book Contract, U.S. Army Corps of Engineers, Galveston District, 1999

Interview Contract, U.S. Army Corps of Engineers, Southwestern Division, 2002

Postdoctoral Grant from the History Associates, Department of History, UCSB, 2002

Postdoctoral Grant, National Endowment for the Humanities, Department of History, UCSB, 2003-

Derek Price/Rod Webster Prize, History of Science Society, 2003

Book Contract, U.S. Army Corps of Engineers, Headquarters, 2005-2012

Book Contract, Random House, 2010-2013

Book Contract, U.S. Army Corps of Engineers, Institute for Water Resources, 2012-

Activities:

Selected as an NCAA All-American in water polo, 1981-1982

Member of US National Water Polo Team, 1983-1984

Executive Assistant to the Director of the Summer Seminar on Global Security and Arms Control,

University of California's Institute on Global Conflict and Cooperation (IGCC), 1985-1986

Fellow at the 1988 IGCC Summer Seminar on Global Security and Arms Control, 1988

Head Coach, UCSB Women's Water Polo Team, 1991-1992

President, Santa Barbara Water Polo Foundation, 2003-2004

Vice President, South Coast Community Aquatics Center, 2009-

Member:

American Historical Association Society for the History of Technology History of Science Society Phi Alpha Theta

References:

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References, cont.

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CERTIFICATE OF SERVICE

The undersigned attorney certifies on June 28, 2018 that copies of the Declaration of Peter Neushul, Ph.D. in support of Owens-Illinois's Notice of Removal was served under Federal Rule of Civil Procedure 5 by electronic means to all counsel of record.

MARON MARVEL BRADLEY ANDERSON & TARDY, LLC

By: /s/ Chad D. Mountain

Chad D. Mountain, Esquire